

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>				5. MINERAL LEASE NO: ML-46526	6. SURFACE: State
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: Not Applicable	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: Not Applicable	
2. NAME OF OPERATOR: THE HOUSTON EXPLORATION COMPANY 1100 Louisiana, Suite 2000				9. WELL NAME and NUMBER: Bonanza #4B-16	
3. ADDRESS OF OPERATOR: CITY Houston STATE TX ZIP 77002			PHONE NUMBER: 713-830-6973	10. FIELD AND POOL, OR WILDCAT: Wildcat	
4. LOCATION OF WELL (FOOTAGES)  AT SURFACE: 495' FNL, 2039' FEL (NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ ) of Section 16  AT PROPOSED PRODUCING ZONE: Same as above				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  NW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 16 T9S, R24E, S.L.B.&M.	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:  Approximately seventeen (17) miles southwest of Dinosaur, CO				12. COUNTY: Uintah	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)  495'		16. NUMBER OF ACRES IN LEASE:  280 acres +/-		17. NUMBER OF ACRES ASSIGNED TO THIS WELL:  40 acres	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)  2,145.68'		19. PROPOSED DEPTH:  8430'		20. BOND DESCRIPTION:  Bond Number 104155043	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):  5227' GR		22. APPROXIMATE DATE WORK WILL START:  May 30, 2004		23. ESTIMATED DURATION:  30 days	

24. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT	
12.250"	9.625" K-55 36.0#	0-2000'	430 sx circulated to surface	
7.875"	5.500" N-80 17.0#	0-8430'	615 sx cement	

25. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Robert M. Anderson TITLE Authorized Agent

SIGNATURE \_\_\_\_\_ DATE April 30, 2004

(This space for State use only)

API NUMBER ASSIGNED: \_\_\_\_\_

APPROVAL: \_\_\_\_\_



State Online Services

Agency List

Business.utah.gov

Search Uta

## UTAH DIVISION OF WATER RIGHTS

Select Related Information

**(WARNING: Water Rights makes NO claims as to the accuracy**

WRNUM: 49-2171

APPLICATION/CLAIM NO.: T75276

CERT. NO.:

OWNERSHIP\*\*\*\*\*

NAME: Target Trucking Inc.

ADDR: 2960 North 500 East

Vernal, UT 84078

LAND OWNED BY APPLICANT? No

DATES, ETC.\*\*\*\*\*

FILED: 02/18/2004 | PRIORITY: 02/18/2004 | PUB BEGAN: | PUB ENDED:

ProtestEnd: | PROTESTED: [No ] | HEARNG HLD: | SE ACTION: [

EXTENSION: | ELEC/PROOF: [ ] | ELEC/PROOF: | CERT/WUC:

RENOVATE: | RECON REQ: | TYPE: [ ]

PD Book No. Map:

Type of Right: Temporary Application Source of Info: Application to Appropri

Related Distribution System: Not part of any Distribution System

LOCATION OF WATER RIGHT\*\*\*\*\*

FLOW: 10.0 acre-feet

SOURCE: White River

COUNTY: Uintah

COMMON DESCRIPTION: 45 miles southeast of Vernal

POINT OF DIVERSION -- SURFACE:

(1) N 400 ft W 1850 ft from E4 cor, Sec 02, T 10S, R 24E, SLBM

Diverting Works: Pump into tank trucks

Source:

PLACE OF USE OF WATER RIGHT\*\*\*\*\*

	NORTH-WEST <sup>1</sup> / <sub>4</sub>	NORTH-EAST <sup>1</sup> / <sub>4</sub>	SOUTH-WEST <sup>1</sup> / <sub>4</sub>
	NW NE SW SE	NW NE SW SE	NW NE SW SE
ALL T 9S R 23E SLBM	*		
ALL T 9S R 24E SLBM	*		
ALL T 9S R 25E SLBM	*		
ALL T 10S R 22E SLBM	*		
ALL T 10S R 23E SLBM	*		
ALL T 10S R 24E SLBM	*		
ALL T 10S R 25E SLBM	*		
ALL T 11S R 25E SLBM	*		
ALL T 12S R 25E SLBM	*		
ALL T 13S R 25E SLBM	*		
ALL T 14S R 25E SLBM	*		

USES OF WATER RIGHT\*\*\*\*\*

CLAIMS USED FOR PURPOSE DESCRIBED: 2171

Referenced To: Claims Groups: 1 Type of Referen

.....  
###OIL EXPLORATION Drilling and completion of wells in the Bonanza Oil Field area  
\*\*\*\*\*  
\*\*\*\*\*E N D O F D A T A\*\*\*\*\*  
\*\*\*\*\*

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001

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

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**PROPOSED CASING AND CEMENTING PROGRAM**

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7.875"	5.500" N-80 17.0#	0-8430'	615 sx cement

**RECEIVED**

25.

**ATTACHMENTS****MAY 04 2004**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

DIV. OF OIL, GAS &amp; MINING

- ☒ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☒ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER

- ☒ COMPLETE DRILLING PLAN
- ☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Robert M. Anderson

TITLE Authorized Agent

SIGNATURE

DATE April 30, 2004

(This space for State use only)

API NUMBER ASSIGNED:

43-047-35494

APPROVAL:

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

Date: 05-24-04

By: 

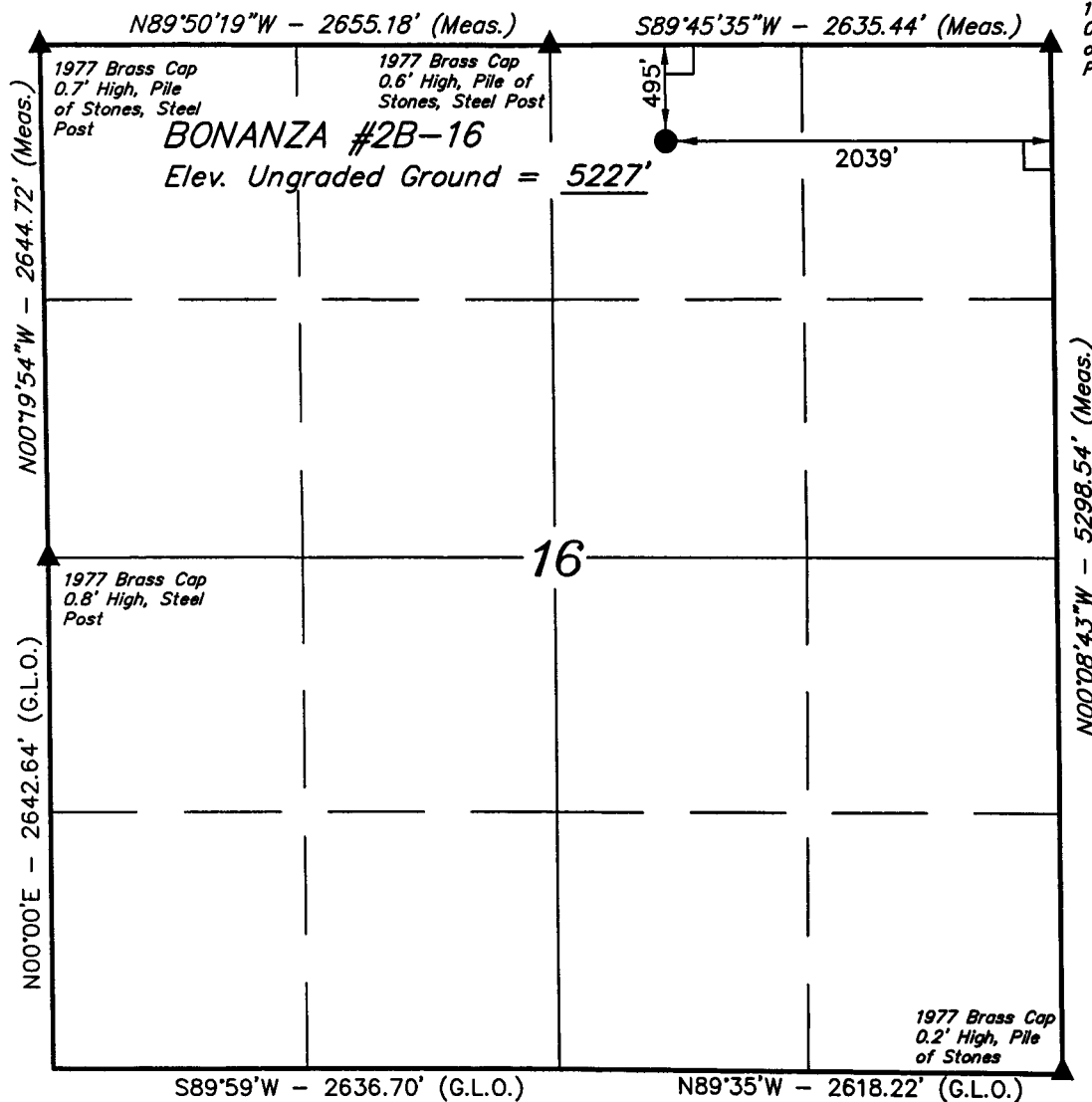
(11/2001)

(See Instructions on Reverse Side)

T9S, R24E, S.L.B.&M.

# THE HOUSTON EXPLORATION COMPANY

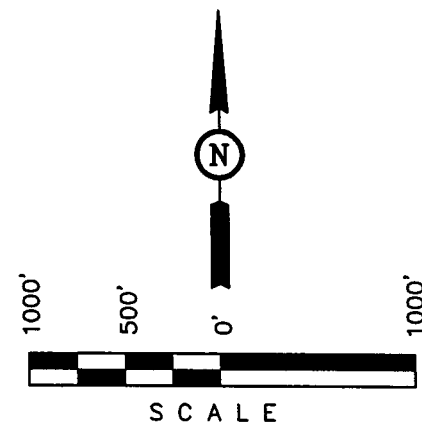
Well location, BONANZA #2B-16, located as shown in the NW 1/4 NE 1/4 of Section 16, T9S, R24E, S.L.B.&M. Uintah County, Utah.



1977 Brass Cap  
0.2' High, Pile  
of Stones, Steel  
Post

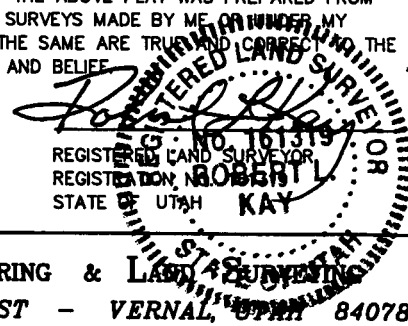
## BASIS OF ELEVATION

BENCH MARK (50EAM) LOCATED IN THE NW 1/4 OF SECTION 20, T9S, R24E, S.L.B.&M. TAKEN FROM THE BONANZA QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5240 FEET.



## CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



## LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

## BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

(AUTONOMOUS NAD 83)

LATITUDE = 40°02'30.34" (40.041761)

LONGITUDE = 109°13'00.94" (109.216928)

UINTAH ENGINEERING & LAND SURVEYING  
85 SOUTH 200 EAST - VERNAL, UTAH 84078  
(435) 789-1017

SCALE 1" = 1000'		DATE SURVEYED: 04-23-04	DATE DRAWN: 04-25-04
PARTY B.B. T.H. D.R.B.	REFERENCES G.L.O. PLAT		
WEATHER WARM	FILE THE HOUSTON EXPLORATION COMPANY		

THE HOUSTON EXPLORATION COMPANY  
 State of Utah Lease #ML-46526, Bonanza #2B-16  
 NW¼NW¼NE¼, Section 16, T9S, R24E  
 Uintah County, Utah

## DRILLING PROGNOSIS

### 1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Green River	Surface	Buck Tongue	8038'
Uteland Buttes	3738'	Castlegate	8102'
Wasatch	3819'	Mancos	8318'
Mesaverde	5596'	Total Depth	8430'

### 2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS

Wasatch	3819'	Gas - Possible
Mesaverde	5596'	Gas - Possible
Castlegate	8102'	Gas - Primary Objective

Any shallow water zones encountered will be adequately protected and reported. All potentially productive hydrocarbon zones will be cemented off.

### 3. PRESSURE CONTROL EQUIPMENT

**A. Type:** Eleven (11) Inch Double Gate Hydraulic BOP with Eleven (11) Inch Annular Preventer. The Blow-Out Preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Drilling spool with two (2) side outlets (choke side 3-inch minimum, kill side 2-inch minimum).
4. Kill line (2-inch minimum).
5. Two (2) kill line valves, one of which will be a check valve (2-inch minimum).
6. One 3-inch (minimum) choke line.
7. Two (2) choke line valves (3-inch minimum).
8. Two (2) adjustable chokes.
9. Pressure gauge on choke manifold.
10. Upper kelly cock valve with handle available.
11. Safety valve & subs to fit all drill strings in use.
12. Fill-up line above the uppermost preventer.

**B. Pressure Rating:** 3,000 psi

**C. Testing Procedure:**

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug).

### 3. PRESSURE CONTROL EQUIPMENT

#### C. Testing Procedure: Continued

Pressure will be maintained for a period of at least 10 minutes or until the requirements of the test are met, whichever is longer. At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

#### D. Choke Manifold Equipment:

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

#### E. Miscellaneous Information:

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with recommendations contained in API RP 53.

The choke manifold and BOP extension rods with hand wheels will be located outside the rig sub-structure. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the well head but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

### 4. THE PROPOSED CASING AND CEMENTING PROGRAM

#### A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set
12.250"	9.625"	36.0#	K-55	ST&C	0 - 2000'
7.875"	5.500"	17.0#	N-80	LT&C	0 - 8430'

#### B. Cementing Program:

Surface Casing - Lead with approximately 218 sx Premium Lite II cement + additives mixed at 11.0 ppg (yield = 3.38 ft<sup>3</sup>/sx).

#### 4. THE PROPOSED CASING AND CEMENTING PROGRAM

##### B. Cementing Program: Continued

Surface Casing - Tail with approximately 212 sx Class G cement + additives mixed at 15.6 ppg (yield = 1.20 ft<sup>3</sup>/sx). Cement will be circulated back to surface with 100% excess.

Production Casing - Lead with approximately 115 sx Premium Lite II cement + additives mixed at 11.0 ppg (yield = 3.38 ft<sup>3</sup>/sx).

Tail with approximately 500 sx 50/50 Poz Class G cement + additives mixed at 14.3 ppg (yield = 1.31 ft<sup>3</sup>/sx).

The above cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole gauge and will be determined by running a caliper log on the drilled hole.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

#### 5. MUD PROGRAM - Visual Monitoring

Interval	Mud Type	Weight	Viscosity	Fluid Loss
0 - 2000'	Fresh Water	-----	-----	-----
2000 - 8430'	LSND	8.5 - 9.3	28 - 32	< 12 cc's

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

#### 6. EVALUATION PROGRAM

Logs : DIL-FDC-BHC - from 8430' to 2000'  
CNL-SP-CAL-GR \* - from 8430' to 2000'

\* Pull Gamma Ray Log Back to Surface

DST's : DST's will be run as warranted by logs and/or shows - none are scheduled at this time.

Cores : None anticipated.

The evaluation program may change at the discretion of the well site geologist.



## **7. ABNORMAL CONDITIONS**

No abnormal temperatures or pressures are anticipated. No H<sub>2</sub>S gas has been encountered in or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 4,215 psi (calculated at 0.50 psi/foot) and maximum anticipated surface pressure equals approximately 2,361 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

## **8. ANTICIPATED STARTING DATE**

Anticipated Commencement Date : May 30, 2004  
Drilling Days : Approximately 30 Days  
Completion Days : Approximately 15 Days

## **9. OTHER INFORMATION**

1. A comprehensive cultural resources inventory has been conducted on the proposed Bonanza #2B-16 well location and access road route. The subject inventory was conducted by John M. Scott/Metcalf Archaeological Consultants, Inc. (MAC) of Eagle, Colorado on April 29, 2004 and cultural clearance has been recommended for the subject proposal by Mr. Scott. A copy of the MAC report will be forwarded to your office upon immediately upon receipt thereof. We expect that copies of the report will be forwarded directly to both Jim Dykman/UDSH Compliance Coordinator and Kenny Wintch/SITLA Archaeologist by MAC via overnight mail on/about May 5, 2004.
2. Fresh water for use in drilling operations will be furnished by Target Trucking, Inc. of Vernal, Utah under existing Water Right Number 49-2171, Temporary Application Number T75276, which includes an appropriation for use in drilling operations in Section 16, T9S, R24E. Drilling water will be diverted from the White River at a point located approximately in the SWSE¼ of Section 2, T10S, R24E as approved in the subject Application to Appropriate Water.

## **10. PLANS FOR RECLAMATION OF THE SURFACE**

### **A. Producing Operations:**

1. Backfilling, leveling and re-contouring are planned as soon as possible after cessation of drilling and completion operations. Waste and spoil materials will be disposed of immediately upon cessation of drilling and completion activities.
2. For production, the fill slopes will be reduced from a 1.5:1 slope to a 3:1 slope and the cut slopes will be reduced from a 2:1 slope to a 3:1 slope by pushing the fill material back up into the cut.

## 10. PLANS FOR RECLAMATION OF THE SURFACE

### A. Producing Operations: Continued

3. Upon completion of backfilling, leveling and recontouring, all disturbed surfaces (access road and well pad areas) will be scarified to a depth of one (1) foot and the stockpiled topsoil will be evenly redistributed to a depth of six (6) inches over the reclaimed area(s).
4. Prior to commencement of seeding operations, the seedbed will be prepared by disking on the contour to a depth of four (4) to six (6) inches. The entire disturbed area will be uniformly covered with depressions constructed perpendicular to the natural flow of water to facilitate the capture of moisture and subsequent promotion of revegetation success.
5. All disturbed surfaces (including the access road and well pad areas) will be reseeded using the following seed mixture (or a different mixture to be recommended by the Authorized Officer, Utah Division of Oil, Gas and Mining:

Species		Pounds Pure Live Seed (PLS) per Acre
Common Name	Scientific Name	
Siberian wheatgrass	<i>Agropyron frailie</i>	3.00
Russian wildrye	<i>Psathyrostachys juneca</i>	2.00
Indian ricegrass	<i>Stypia hymenoides</i>	1.00
Crested wheatgrass	<i>Agropyron cristatum</i>	2.00
Needleandthread grass	<i>Hesperostipia commata</i>	0.50
Thickspike wheatgrass	<i>Elymus lanceolauts</i>	2.50
Globe mallow	<i>Sphaeralcea coccinea</i>	0.25
Fourwing saltbush	<i>Atriples cansence</i>	2.00
Forage kochia	<i>Kochia postrata</i>	0.50
Winterfat	<i>Eurotia lanata</i>	1.00
Wyoming big sagebrush	<i>Artemesia tridentata</i>	0.50

6. Seed will be drilled on the contour with a seed drill equipped with a depth regulator in order to ensure even depths of planting. Seed will be planted between one-quarter (1/4) to one-half (1/2) inches deep.
7. Fall seeding will be completed after September 15<sup>th</sup> and prior to ground frost. If applicable, spring seeding will be completed after the frost has left the ground and prior to May 1<sup>st</sup>. The seeding will be repeated until a satisfactory stand, as determined by the UDOGM, is achieved. The first evaluation of growth will be made following the completion of the first growing season.
8. Re-seeding activities are considered best in the fall of 2005, unless otherwise requested by the Authorized Officer, UDOGM.

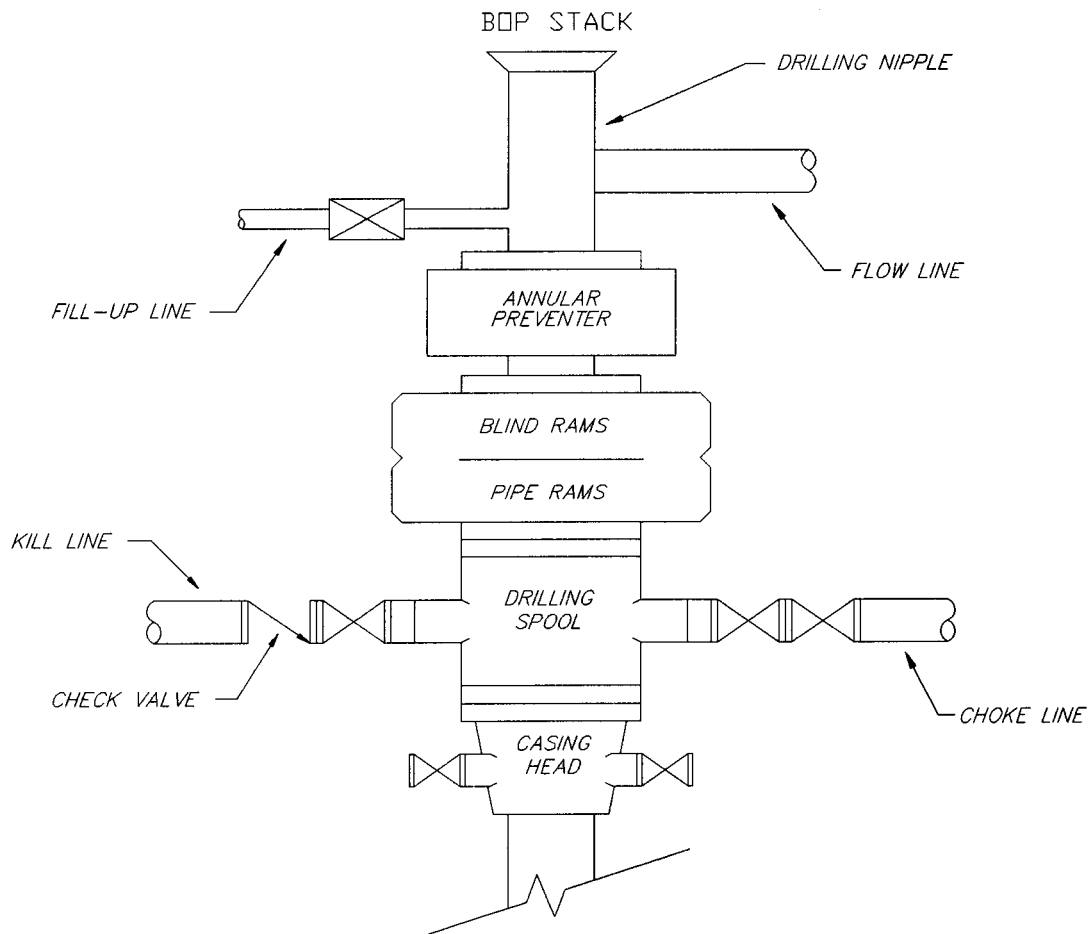
**10. PLANS FOR RECLAMATION OF THE SURFACE - Continued**

**B. Abandoned Well Location:**

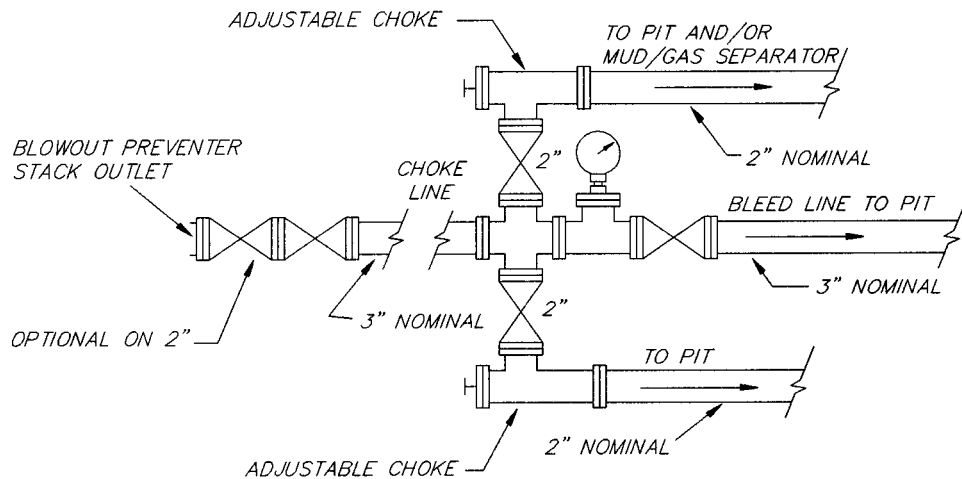
1. Upon final abandonment of the well location, gravel will be removed from the access road surface and well location (as directed by the Authorized Officer), water diversion installed as needed, and both the access road and well location restored to approximately the original ground contour(s) by pushing the fill material back into the cut and up over the backslope.
2. Prior to commencement of seeding operations, the seedbed will be prepared by disking on the contour to a depth of four (4) to six (6) inches. All disturbed surfaces (including the access road and well pad areas) will be reclaimed and reseeded as recommended in Item #'s 10C3-7, above.

# THE HOUSTON EXPLORATION COMPANY

## *TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER SCHEMATIC*



## *TYPICAL 3,000 p.s.i. CHOKE MANIFOLD SCHEMATIC*





# THE HOUSTON EXPLORATION COMPANY

## BONANZA #2B-16

LOCATED IN UINTAH COUNTY, UTAH

SECTION 16, T9S, R24E, S.L.B.&M.

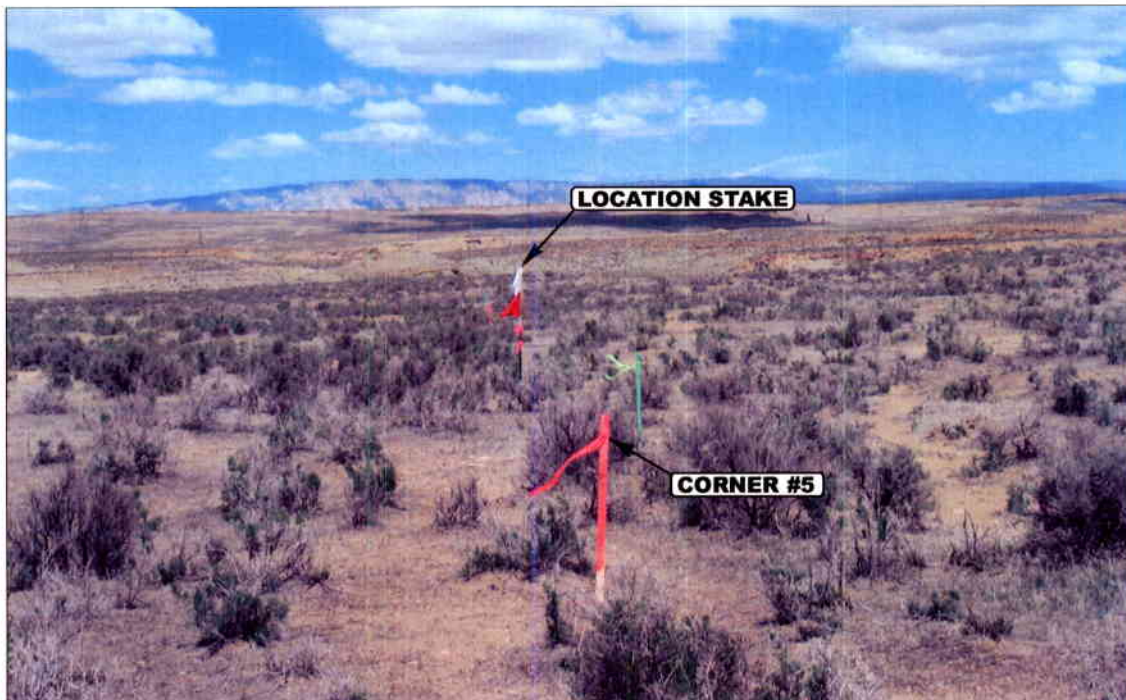


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY



- Since 1964 -

**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

**LOCATION PHOTOS**

**04** **26** **04**  
MONTH DAY YEAR

**PHOTO**

TAKEN BY: B.B.

DRAWN BY: P.M.

REVISED: 00-00-00



[illegible]

 **EXISTING ROAD**  
 **PROPOSED ACCESS ROAD**  
 **EXISTING 2-TRACK NEEDS UPGRADED**



**Uintah Engineering & Land Surveying**  
**85 South 200 East Vernal, Utah 84078**  
**(435) 789-1017 \* FAX (435) 789-1813**

**BONANZA #2B-16**  
**SECTION 16, T9S, R24E, S.L.B.&M.**  
**495' FNL 2039' FEL**

**TOPOGRAPHIC  
MAP**

04 26 04  
MONTH DAY YEAR

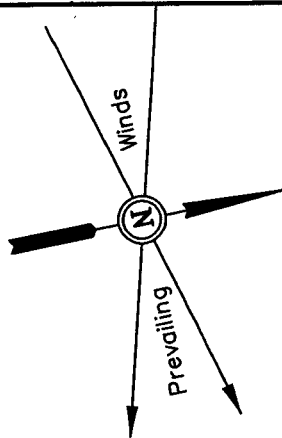
SCALE: 1" = 2000'	DRAWN BY: P.M.	REVISED: 00-00-00
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**B**  
**TOPO**

# THE HOUSTON EXPLORATION COMPANY

## LOCATION LAYOUT FOR

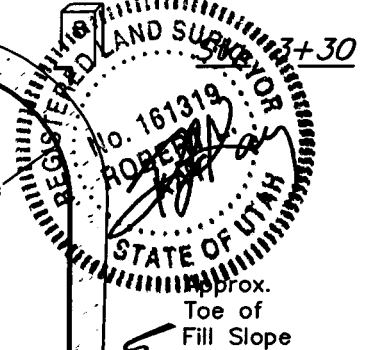
BONANZA #2B-16  
SECTION 16, T9S, R24E, S.L.B.&M  
495' FNL 2039' FEL



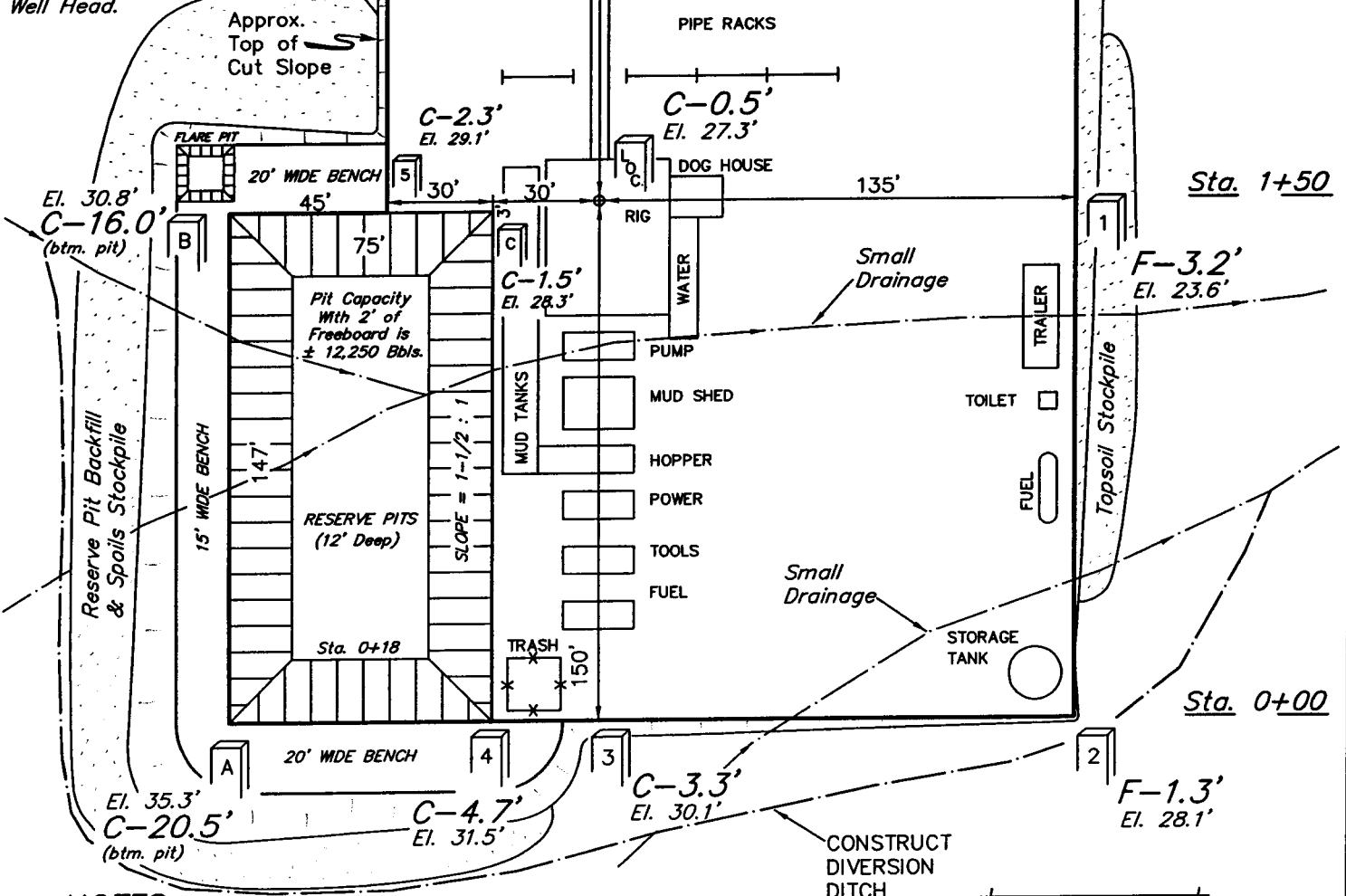
SCALE: 1" = 50'  
DATE: 04-25-04  
Drawn By: D.R.B.

Proposed Access Road

F-5.8'  
El. 21.0'



**NOTE:**  
Flare Pit is to be located  
a min. of 100' from the  
Well Head.



### NOTES:

Elev. Ungraded Ground At Loc. Stake = 5227.3'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5226.8'

FIGURE #1

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017



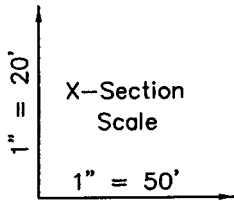
# THE HOUSTON EXPLORATION COMPANY

## TYPICAL CROSS SECTIONS FOR

BONANZA #2B-16

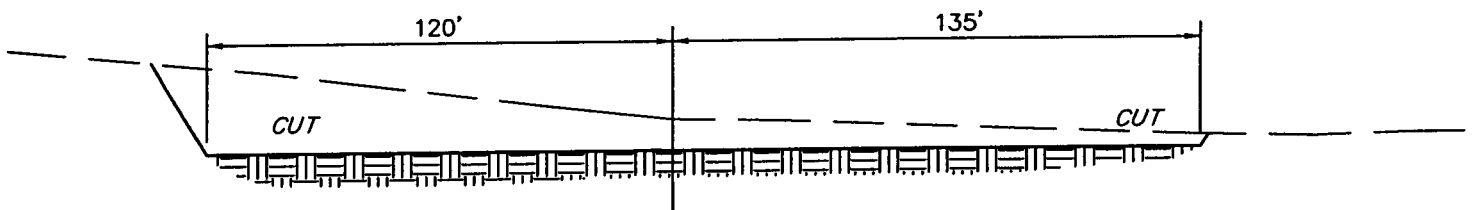
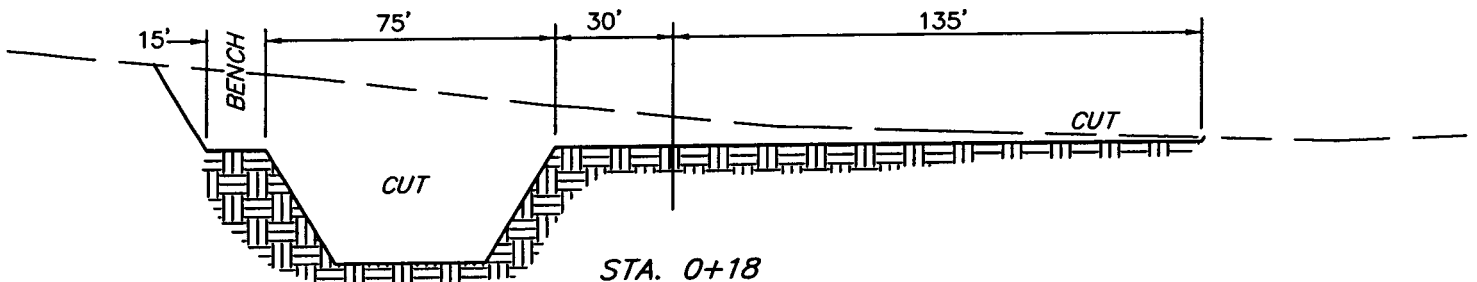
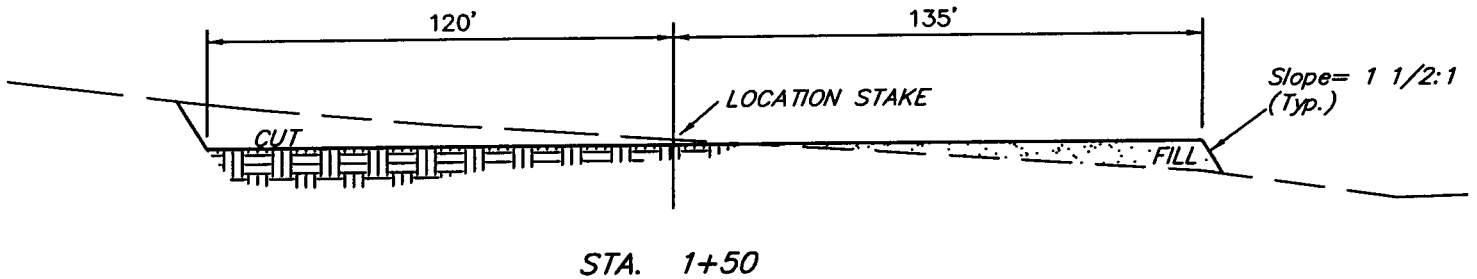
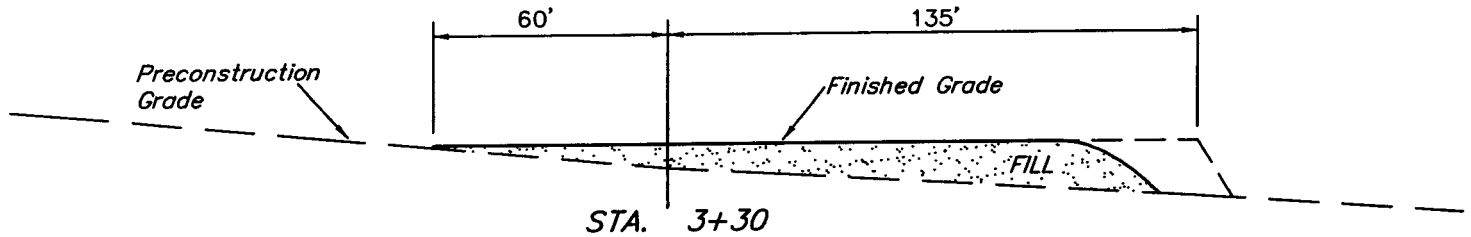
SECTION 16, T9S, R24E, S.L.B.&M.

495' FNL 2039' FEL



DATE: 04-25-04

Drawn By: D.R.B.



\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

### APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,600 Cu. Yds.
Remaining Location	= 7,470 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 9,070 CU.YDS.</b>
<b>FILL</b>	<b>= 4,250 CU.YDS.</b>

### FIGURE #2

EXCESS MATERIAL AFTER 5% COMPACTION	= 4,820 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,260 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 1,560 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

003

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 05/04/2004

API NO. ASSIGNED: 43-047-35694

WELL NAME: BONANZA ~~2~~B-16OPERATOR: HOUSTON EXPLORATION CO, ( N2525 )CONTACT: ROBERT ANDERSONPHONE NUMBER: 713-830-6973

## PROPOSED LOCATION:

NWNE 16 090S 240E

SURFACE: 0495 FNL 2039 FEL

BOTTOM: 0495 FNL 2039 FEL

UINTAH

DEVILS PLAYGROUND ( 575 )

LEASE TYPE: 3 - State

LEASE NUMBER: ML-46526 *OK*

SURFACE OWNER: 3 - State

PROPOSED FORMATION: CSLGT

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	<i>DKD</i>	<i>5/21/04</i>
Geology		
Surface		

LATITUDE: 40.04187

LONGITUDE: 109.21634

## RECEIVED AND/OR REVIEWED:

- ☒ Plat
- ☒ Bond: Fed[] Ind[] Sta[3] Fee[]  
 (No. 104155043 *OK* )
- ☒ Potash (Y/N)
- ☒ Oil Shale 190-5 (B) or 190-3 or 190-13
- ☒ Water Permit  
 (No. 49-2171 )
- ☒ RDCC Review (Y/N)  
 (Date: \_\_\_\_\_ )
- ☒ Fee Surf Agreement (Y/N)

## LOCATION AND SITING:

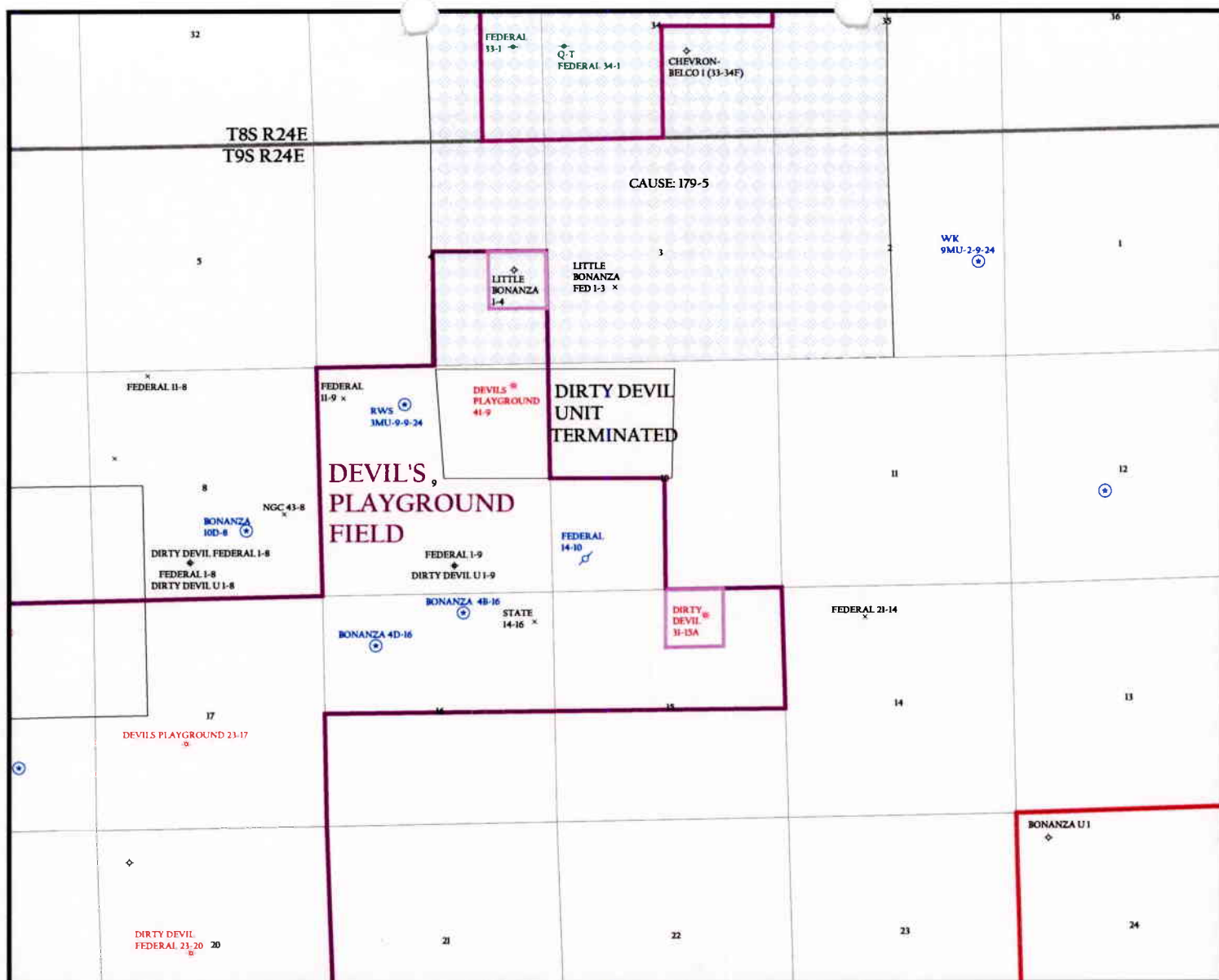
- \_\_\_\_ R649-2-3.
- Unit \_\_\_\_\_
- ☒ R649-3-2. General  
 Siting: 460 From Qtr/Qtr & 920' Between Wells
- \_\_\_\_ R649-3-3. Exception
- \_\_\_\_ Drilling Unit  
 Board Cause No: \_\_\_\_\_  
 Eff Date: \_\_\_\_\_  
 Siting: \_\_\_\_\_
- \_\_\_\_ R649-3-11. Directional Drill

## COMMENTS:

Needs Permit (5-18-04)

## STIPULATIONS:

1- Spacing WHP2- STATEMENT OF BASIS3- Surface Casing Cement Steps4- 5 1/2" production string shall be cemented back to  $\pm$  2500' min. to protect Base of Moderately Saline Ground water.



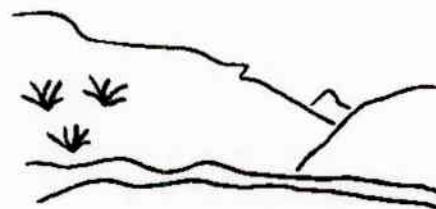
OPERATOR: THE HOUSTON EXPL CO (N2525)

SEC. 16 T.9S, R.24E

FIELD: DEVIL'S PLAYGROUND (575)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining

#### Well Status

- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL

#### Unit Status

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

#### Field Status

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED



PREPARED BY: DIANA WHITNEY  
DATE: 7-MAY-2004

**From:** Ed Bonner  
**To:** Whitney, Diana  
**Date:** 5/6/2004 5:26:16 PM  
**Subject:** Re: The Houston Expl. Company lease and bond

The Houston Exploration Company lease ML 46526 is OK  
Bond No. 104155043 in the amount of \$80,000 is OK



**MAC**  
**Metcalf Archaeological Consultants, Inc.**

---

May 3, 2004

Mr. Lloyd Bruce  
The Houston Exploration Company  
1100 Louisiana, Suite 2000  
Houston, Texas 77002

Re: Archaeological inventory of the proposed Bonanza 2B-16 well project in Uintah County,  
Utah

Dear Mr Bruce,

Enclosed is one copy of our cultural resource inventory report for the proposed Bonanza 2B-16 well and its associated access road. The fieldwork was done April 29, 2004 and has the Utah State project #U-04-MM-0389s. MAC recommends a finding of no historic properties for this project. No cultural resources were located during this inventory. No further cultural resource work is recommended.

One copy of the report has been sent to Kenny Wintch at the Utah State Institutional and Trust Lands Administration. Another copy has been sent to James Dykman, the Utah Division of State History. A third copy has been sent to Bob Anderson of Heitzman-Anderson.

Thank you for the opportunity to participate in this project. As always, please do not hesitate to contact our office if you have any questions or concerns about the enclosed report or about any aspect of our involvement in this project.

Sincerely,

Patrick K. O'Brien  
Senior Staff Archaeologist

cc: **Bob Anderson of Heitzman-Anderson**  
James Dykman, UDSH Compliance Coordinator  
Kenny Wintch, SITLA Archaeologist

**COPY**

**RECEIVED**

**MAY 13 2004**

DIV. OF OIL, GAS & MINING

(970) 328-6244  
FAX: (970) 328-5623  
P.O. Box 899  
Eagle, CO 81631  
mac@metcalfarchaeology.com

(701) 258-1215  
FAX: (701) 258-7156  
P.O. Box 2154  
Bismarck, ND 58502  
macnodak@btigate.com

COVER PAGE  
Must Accompany All Project Reports  
Submitted to Utah SHPO

Project Name: The Houston Exploration Company: Class III Cultural Resource Inventory for the Bonanza 2B-16 Well Project in Uintah County, Utah.

State Proj. No. U-04-MM-0389s

Report Date: May 3, 2004

Principal Investigator: Michael D. Metcalf

Field Supervisor(s): John M. Scott

Records search completed at what office(s)? Utah Division of State History

Record search date(s): April 28, 2004

Acreage Surveyed

Intensive: 11.8 acres

Recon/Intuitive: 0.0 acres

7.5' Series USGS Map Reference(s): Bonanza (1968; PR 1987)

Sites Reported	Count	Smithsonian Numbers
Archaeological Sites		
Revisits (no inventory form update)	<u>0</u>	<u></u>
Updates (update IMACS site inventory form attached)	<u>0</u>	<u></u>
New recordings (IMACS site inventory form attached)	<u>0</u>	<u></u>
Total Count of Archaeological Sites	<u>0</u>	
Hist. Structures(USHS 106 Site info form attached)	<u>0</u>	
Total National Register Eligible Sites	<u>0</u>	

---

Checklist of Required Items

1. X 1 Copy of the final report
2. X Copy of 7.5' Series USGS Map with Surveyed/Excavated Area Clearly Identified.
3. Completed IMACS Site Inventory Forms, Including
  - Parts A and B or C,
  - the IMACS encoding Form,
  - Site Sketch Map,
  - Photographs, and
  - Copy of the Appropriate 7.5' Series USGS Map w/ the Site Location Clearly Marked and Labeled w/ the Smithsonian Site Number
4. X Completed "Cover Sheet" Accompanying Final Report and Survey Materials

**The Houston Exploration Company:  
Class III Cultural Resource Inventory for  
the Bonanza 2B-16 Well Project in Uintah County, Utah**

by  
Patrick O'Brien  
Metcalf Archaeological Consultants, Inc.  
P.O. Box 899  
Eagle, CO 81631

for  
The Houston Exploration Company  
1100 Louisiana, Suite 2000  
Houston Texas 77002

Utah State Antiquities Permit No. U-04-MM  
Expires 2/10/2005

Project No. U-04-MM-0389s

May, 2004

## **Introduction**

Metcalf Archaeological Consultants, Inc. (MAC) conducted a Class III cultural resource inventory for The Houston Exploration Company's proposed Bonanza 2B-16 well pad in Uintah County, Utah (Figure 1). The project is located in the east of the Uintah Basin about a half mile north-northwest of the Little Bonanza mining complex in the NW/NE of section 16, T9S, R24E, Uintah County, Utah.

A 10 acre block centered on the proposed location-to-drill stake was inventoried. The well will be drilled on a prepared, level, earthen pad approximately 2.5 acres in size. The access will be about 30' wide and approximately 930 feet long. Approximately 530 feet of the access will follow the route of an existing two-track that will require upgrading. The remaining 400 feet of access will be built new. Approximately 800 feet of the proposed access is outside the 10 acre survey block and was inventoried separately. This additional inventory consisted of a corridor 100 feet wide and 800 feet long. Thus, approximately 11.8 acres were inventoried for this well project. The entire project area is owned by the State of Utah and managed by the State Institutional and Trust Lands Administration (SITLA) in Salt Lake City, Utah.

This cultural resource inventory was conducted to locate, identify, and evaluate any cultural resources within the project boundaries. The fieldwork was conducted by MAC staff archaeologist John M. Scott on April 29, 2004 under the stipulations of the Utah Antiquities Annual Permit #U-04-MM (expires 2/10/05). All field notes, maps, and photographic negatives are on file at the MAC office in Eagle, Colorado.

## **Project Setting**

The proposed well is located in the eastern portion of the Uinta Basin. More specifically, it is approximately one mile south of Coyote Wash and four to five miles north of the White River. This area is a broken plain that slopes gently down to the west-northwest, and is moderately rugged with ridges, hills/buttes, and moderately deep, incised drainages. Most of this region drains by a series of dendritic streams that flow west into the White River. The specific well location is staked in a shallow basin that slopes down to the north. The immediate area is moderately dissected by shallow erosional channels that drain north.

The access begins at the intersection of a reconditioned road and an existing road to a nearby gilsonite mine. From this intersection, the access follows a two-track northeast for about 530 feet, then turns east-northeast and continues for another 400 feet to the northwest corner of the proposed pad.

Geologically, the study area is dominated by the Tertiary-aged Uinta Formation, which includes sandstone, shale, siltstone and conglomerate (Hintze 1980; Stokes 1986:155). The area suffers substantial erosion and the soil deposition consists of silty sand with many exposed sandstone



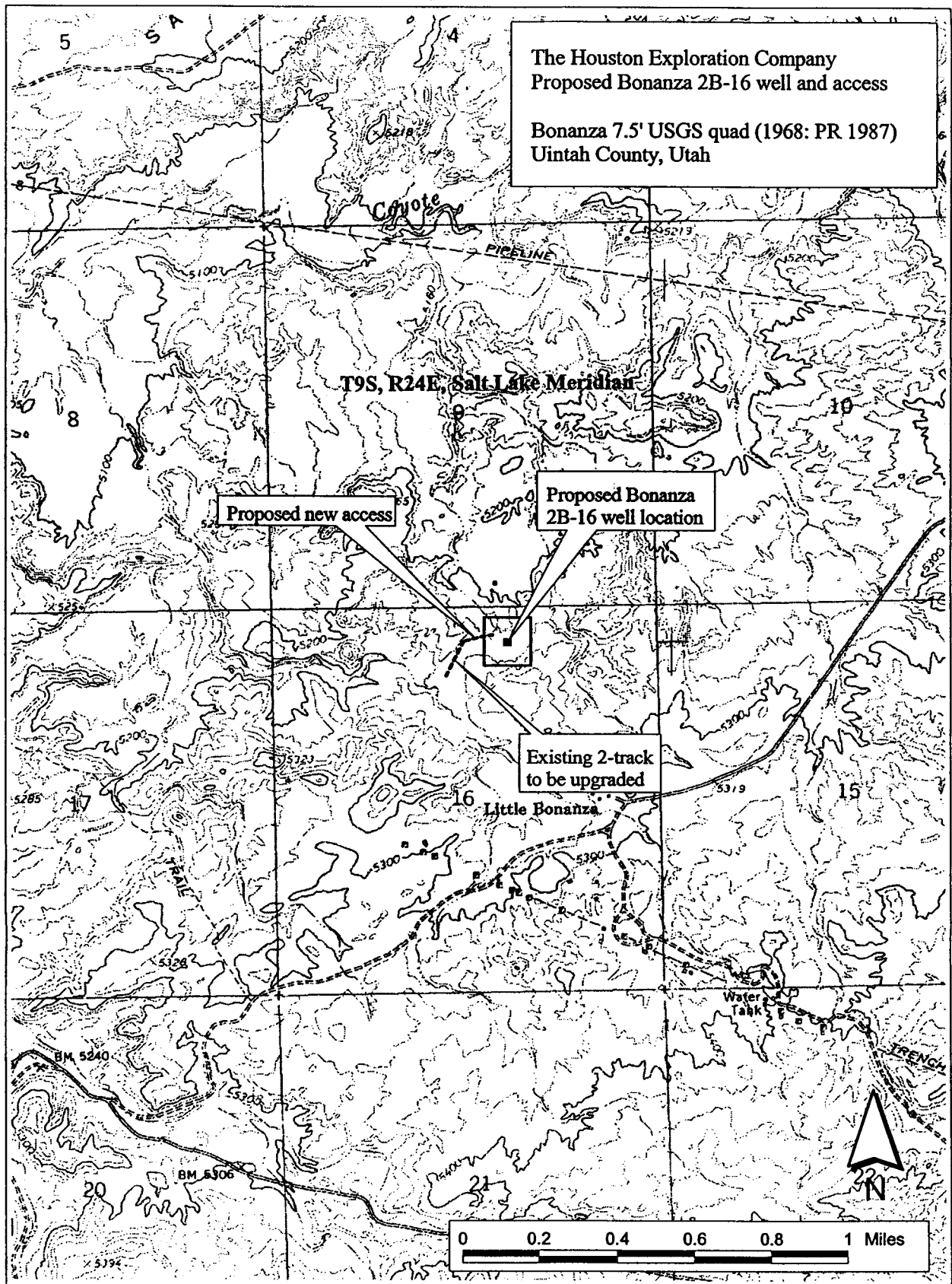


Figure 1 Location of the proposed Bonanza #2B-16 well and access development

cobbles and gravels. The vegetation is a semi-arid desert shrubland dominated by sagebrush, sparse rabbitbrush, and greasewood. The ground surface visibility was excellent with only a 10-25% cover.

### **Cultural History and Files Search**

A files search was conducted at the Utah Division of State History in Salt Lake City on April 28, 2004 for the project area. This search revealed that three previous projects have included parts of section 16, T9S, R24E. In addition, four more inventories have included portions of section 9, T9S, R24E within one-half mile of the current project area. None of these seven previous inventories overlaps with the survey block or access road for the proposed Bonanza 2B-16 location.

The cultural history of the area has been detailed by Spangler (1995), and the region immediately to the east in Colorado has been discussed by Reed and Metcalf (1999). The reader is directed to these sources for in-depth discussions of the region's cultural history.

Based on the fact that sites have been recorded in the general region, MAC thought it possible that sites could be found in the project area. These sites would most likely be either short term prehistoric activity areas or remains associated with gilsonite mining and exploration which is ongoing to the west and southwest of the project area.

### **Methods**

The proposed well location was studied by walking parallel pedestrian transects spaced no more than 15 m apart to cover the north-south oriented 10 acre block centered on the location-to-drill stake. The proposed access route was inspected by walking a zigzag transect on each side of the proposed centerline, resulting in coverage of a 100 foot-wide corridor. The entire 800 feet of proposed access outside the 10 acre block was inventoried. No cultural resources were encountered. Therefore, procedures for their identification and documentation will not be discussed.

### **Results and Summary**

No cultural properties older than 50 years were located during this inventory and nothing was observed to indicate a potential for buried cultural deposits. However, a small scatter of modern trash (cans, glass) was found in the northwest corner of the 10 acre block. A finding of no historic properties is recommended. Cultural resource clearance is recommended for this well pad and its associated access corridor as staked at the time of inventory.

### References Cited

Hintze, L.

- 1980 *Geologic Map of Utah*. Dept. of Natural Resources, Utah Geological and Mineral Survey, Salt Lake City.

Reed, A. D., and M. Metcalf

- 1999 *Colorado Prehistory: A context for the Northern Colorado River Basin*. Colorado Council of Professional Archaeologists.

Spangler, J. D.

- 1995 *Paradigms and Perspectives A Class I Overview of Cultural Resources In the Uinta Basin and Tavaputs Plateau*. Uintah Research, Salt Lake City. Prepared for the Utah Bureau of Land Management, Vernal Field Office. On file, Utah Division of State History, Salt Lake City.

Stokes, William L.

- 1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

**OPERATOR:** THE HOUSTON EXPLORATION COMPANY  
**WELL NAME & NUMBER:** BONANZA 2B-16  
**API NUMBER:** 43-047-35694  
**LEASE:** ML-46526 **FIELD/UNIT:** DEVILS PLAYGROUND  
**LOCATION:** 1/4, 1/4 NW/NE Sec: 16 TWP: 9S RNG: 24E 2039' FEL 495' FNL  
**LEGAL WELL SITING:** 460 F SEC. LINE; 460 F 1/4, 1/4 LINE; 920 F ANOTHER WELL.  
**GPS COORD (UTM):** 652179E 4433712N **SURFACE OWNER:** STATE OF UTAH

**PARTICIPANTS**

DAVID W. HACKFORD (DOGM). FLOYD BARTLETT (DWR). ROBERT ANDERSON (HOUSTON EXPLORATION).

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

SITE IS ON A BROKEN PLAIN THAT SLOPES GENTLY TO THE NORTHWEST, AND IS MODERATELY RUGGED WITH RIDGES, BUTTES, AND MODERATELY DEEP, INCISED DRAINAGES. MOST OF THIS REGION DRAINS BY A SERIES OF DENDRITIC STREAMS WHICH FLOW WEST TO THE WHITE RIVER. THIS SITE IS IN A VERY SHALLOW BASIN THAT SLOPES GRADUALLY TO THE NORTH. THE IMMEDIATE AREA IS MODERATELY DISSECTED BY SHALLOW EROSIONAL CHANNELS THAT DRAIN TO THE NORTH BEFORE TURNING TO THE WEST.

**SURFACE USE PLAN**

CURRENT SURFACE USE: WILDLIFE AND LIVESTOCK GRAZING, HUNTING. THE AMERICAN GILSONITE 1-2 MINE IS 0.2 MILES TO THE SOUTHWEST.

PROPOSED SURFACE DISTURBANCE: LOCATION WILL BE 330' BY 240'. ACCESS ROAD WILL BE 400 FEET PLUS 0.1 MILES OF TWO-TRACK WHICH NEEDS UPGRADED.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: SEE ATTACHED MAP FROM GIS DATABASE.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: ALL PRODUCTION FACILITIES WILL BE ON LOCATION AND ADDED AFTER DRILLING WELL. PIPELINE WILL BE SURVEYED AND PERMITTED IF NEEDED.

SOURCE OF CONSTRUCTION MATERIAL: ALL CONSTRUCTION MATERIAL WILL BE BORROWED FROM SITE DURING CONSTRUCTION OF LOCATION.

ANCILLARY FACILITIES: NONE WILL BE REQUIRED.

**WASTE MANAGEMENT PLAN:**

DRILLED CUTTINGS WILL BE SETTLED INTO RESERVE PIT. LIQUIDS FROM PIT WILL BE ALLOWED TO EVAPORATE. FORMATION WATER WILL BE CONFINED TO STORAGE TANKS. SEWAGE FACILITIES, STORAGE AND DISPOSAL WILL BE HANDLED BY COMMERCIAL CONTRACTOR. TRASH WILL BE CONTAINED IN TRASH BASKETS AND HAULED TO AN APPROVED LAND FILL.

**ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: NONE

FLORA/FAUNA: SAGE, GREASEWOOD, HORSEBRUSH, PRICKLY PEAR, SHADSCALE:  
DEER, ANTELOPE, RODENTS, RAPTORS, SONGBIRDS, BOBCAT, COYOTE, RABBITS.

SOIL TYPE AND CHARACTERISTICS: LIGHT BROWN SANDY CLAY.

EROSION/SEDIMENTATION/STABILITY: VERY LITTLE NATURAL EROSION.  
SEDIMENTATION AND STABILITY ARE NOT A PROBLEM AND LOCATION CONSTRUCTION  
SHOULDN'T CAUSE AN INCREASE IN STABILITY OR EROSION PROBLEMS.

PALEONTOLOGICAL POTENTIAL: NONE OBSERVED

#### **RESERVE PIT**

CHARACTERISTICS: 147' BY 75' AND 12' DEEP.

LINER REQUIREMENTS (Site Ranking Form attached): A LINER WILL NOT BE  
REQUIRED FOR RESERVE PIT.

#### **SURFACE RESTORATION/RECLAMATION PLAN**

AS PER SITLA.

SURFACE AGREEMENT: AS PER SITLA.

CULTURAL RESOURCES/ARCHAEOLOGY: SITE WAS INSPECTED BY METCALF  
ARCHEOLOGICAL CONSULTANTS. A REPORT OF THIS INVESTIGATION WILL BE PLACED ON  
FILE.

#### **OTHER OBSERVATIONS/COMMENTS**

THIS PREDRILL INVESTIGATION WAS CONDUCTED ON A WARM, SUNNY DAY WITH NO  
SNOW COVER.

#### **ATTACHMENTS**

PHOTOS OF THIS SITE WERE TAKEN AND PLACED ON FILE.

DAVID W. HACKFORD  
DOGM REPRESENTATIVE

5/18/04, 9:30 AM  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>5</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>0</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>0</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**                      10                      (Level III Sensitivity)

Sensitivity Level I = 20 or more; total containment is required.  
Sensitivity Level II = 15-19; lining is discretionary.  
Sensitivity Level III = below 15; no specific lining is required.







**DIVISION OF OIL, GAS AND MINING  
APPLICATION FOR PERMIT TO DRILL  
STATEMENT OF BASIS**

**OPERATOR:** THE HOUSTON EXPLORATION COMPANY  
**WELL NAME & NUMBER:** BONANZA #2B-16  
**API NUMBER:** 43-047-35694  
**LOCATION:** 1/4,1/4 NW/NE Sec: 16 TWP: 9S RNG: 24E 2039' FEL 495' FNL

**Geology/Ground Water:**

The Houston Ex. Co. proposes to set 2,000 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 2,700 feet. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this location is the Uinta Formation. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The proposed surface casing should adequately protect any near surface aquifers.

**Reviewer:** Brad Hill **Date:** 05-19-04

**Surface:**

The predrill investigation of the surface was performed on 05/18/04. Floyd Bartlett with DWR and Ed Bonner with SITLA were invited to this investigation on 05/11/04. Mr. Bartlett was present. He had no concerns regarding the construction of this location or the drilling of the well. SITLA did not have a representative present. This site is on State surface, with State minerals, and appears to be the best site for a location in the immediate area. There is a gilsonite mine 0.2 miles southwest of this site, and numerous other gilsonite mines in this section. A diversion ditch will be constructed around the east side of the proposed location, to keep run-off from crossing location.

**Reviewer:** David W. Hackford **Date:** 05/18/2004

**Conditions of Approval/Application for Permit to Drill:**

None.

Well name:  
Operator: **Houston Exploration**  
String type: **Surface**

## 05-04 Houston Bonanza 2B-16

Project ID:  
43-047-35694

### Design parameters:

#### Collapse

Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

### Minimum design factors:

#### Collapse:

Design factor 1.125

#### Burst:

Design factor 1.00

### Environment:

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 103 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 437 ft

#### Burst

Max anticipated surface pressure: 1,760 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,000 psi

No backup mud specified.

#### Tension:

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.  
Neutral point: 1,751 ft

Non-directional string.

#### Re subsequent strings:

Next setting depth: 8,430 ft  
Next mud weight: 9.300 ppg  
Next setting BHP: 4,073 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,000 ft  
Injection pressure 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2000	9.625	36.00	K-55	ST&C	2000	2000	8.765	142.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	873	2020	2.315	2000	3520	1.76	63	423	6.71 J

Prepared Clinton Dworshak  
by: Utah Div. of Oil & Mining

Phone: (801) 538-5280  
FAX: (801) 359-3940

Date: May 19, 2004  
Salt Lake City, Utah

#### Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>05-04 Houston Bonanza 2B-16</b>	
Operator:	<b>Houston Exploration</b>	Project ID:
String type:	<b>Production</b>	<b>43-047-35694</b>

**Design parameters:**
**Collapse**

Mud weight: 9.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 193 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 4,158 ft

**Burst**

Max anticipated surface pressure: 3,061 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 4,073 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.  
Neutral point: 7,241 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8430 ✓	5.5 ✓	17.00 ✓	N-80 ✓	LT&C ✓	8430	8430	4.767	290.5
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4073	6290	1.544 ✓	4073	7740	1.90 ✓	123	348	2.83 J ✓

Prepared by: Clinton Dworshak  
Utah Div. of Oil & Mining

Phone: (801) 538-5280  
FAX: (801) 359-3940

Date: May 19, 2004  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8430 ft, a mud weight of 9.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

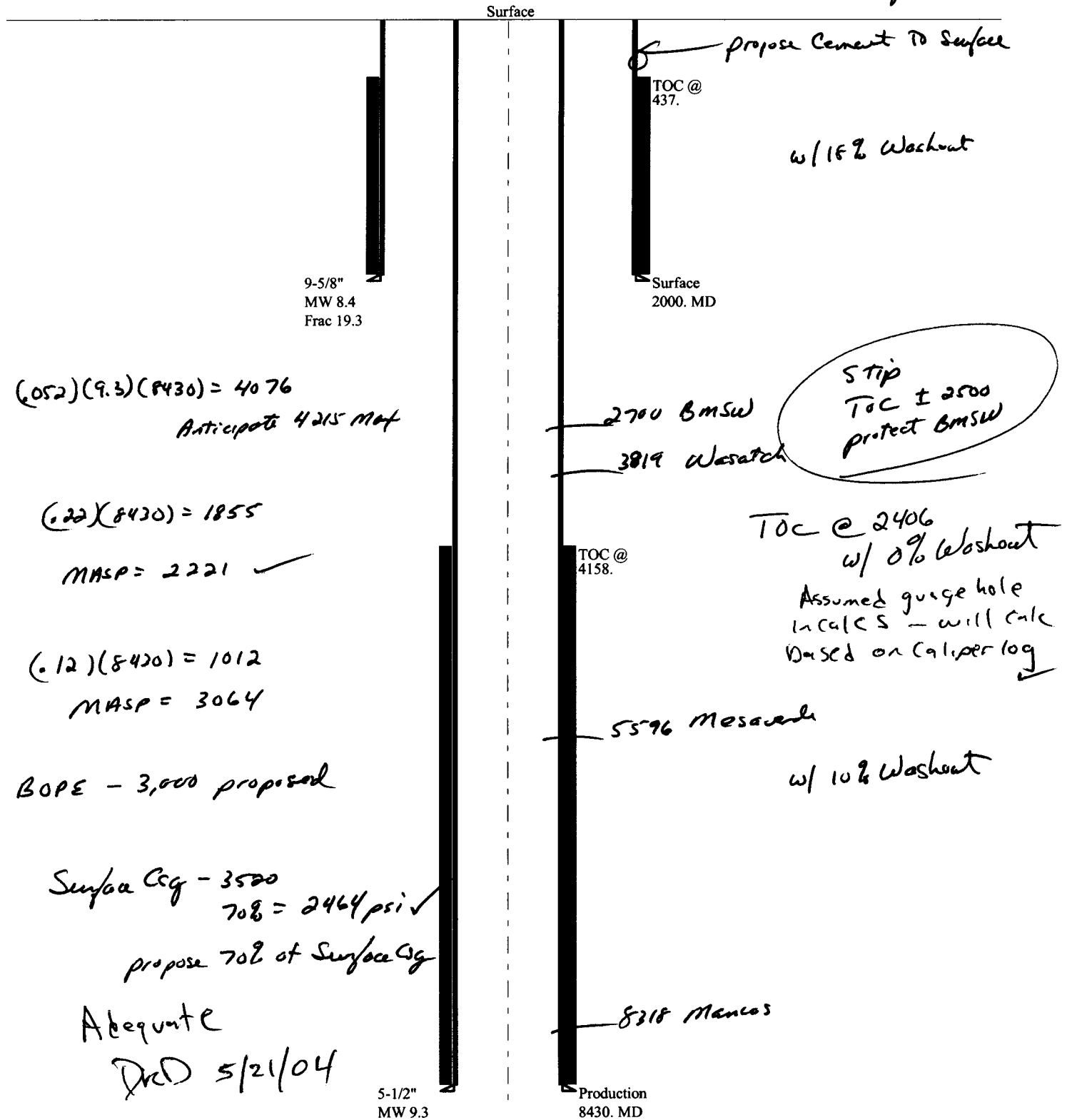
Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

05-04 Houston Bonanza 2B-16

Casing Schematic

Cement to Surface w/ 10% Washout



**From:** Ed Bonner  
**To:** Whitney, Diana  
**Date:** 5/24/2004 9:43:21 AM  
**Subject:** Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

The Houston Exploration Company  
Bonanza 2B-16

Westport Oil & Gas Company  
NBU 1022-7C  
NBU 1022-7D  
NBU 1022-7E  
NBU 1022-7F  
NBU 1022-7G  
State 1022-32I

If you have any questions regarding this matter please give me a call.

**CC:** Garrison, LaVonne; Hill, Brad; Hunt, Gil



## State of Utah

Department of  
Natural ResourcesROBERT L. MORGAN  
*Executive Director*Division of  
Oil, Gas & MiningLOWELL P. BRAXTON  
*Division Director*OLENE S. WALKER  
*Governor*GAYLE F. McKEACHNIE  
*Lieutenant Governor*

May 24, 2004


Houston Exploration Company  
1100 Louisiana, Suite 2000  
Houston, TX 77002Re: Bonanza 2B-16 Well, 495' FNL, 2039' FEL, NW NE, Sec. 16, T. 9 South,  
R. 24 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-35694.

Sincerely,

(for)   
John R. Baza  
Associate Director

pab  
Enclosurescc: Uintah County Assessor  
SITLA

**Operator:** Houston Exploration Company  
**Well Name & Number** Bonanza 2B-16  
**API Number:** 43-047-35694  
**Lease:** ML-46526

**Location:** NW NE **Sec.** 16 **T.** 9 South **R.** 24 East

### **Conditions of Approval**

**1. General**

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**2. Notification Requirements**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

**3. Reporting Requirements**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.**

**5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)**

**6. Surface casing shall be cemented to the surface.**

7. A 5 ½" production string shall be cemented back to ±2500' minimum to protect base of moderately saline ground water.
8. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



**DIVISION OF OIL, GAS AND MINING****SPUDDING INFORMATION**Name of Company: THE HOUSTON EXPLORATION COMPANYWell Name: BONANZA 2B-16Api No: 43-047-35694 Lease Type: STATESection 16 Township 09S Range 24E County UINTAHDrilling Contractor PETE MARTIN RIG # BUCKET**SPUDDED:**Date 05/31/04Time How DRY**Drilling will commence:** JUNE 1, 2004Reported by KENNETH NIELSONTelephone # 1-435-828-2187Date 06/02/2004 Signed CHD

**STATE OF UTAH**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF OIL, GAS AND MINING**

FORM 6

006

**ENTITY ACTION FORM**

Operator: The Houston Exploration CompanyOperator Account Number: N 2525Address: 1100 Louisiana, Suite 2000city Houstonstate TX zip 77002Phone Number: (713) 830-6880

## Well 1

API Number	Well Name	QC	Sec	Twp	Rng	County
43-047-35694	Bonanza 2B-16	NWNE	16	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
A	99999	14186	5/31/04	6/7/04		
Comments: <u>CSLGT</u>						

## Well 2

API Number	Well Name	QC	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
Comments:						

## Well 3

API Number	Well Name	QC	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date	Entity Assignment Effective Date		
Comments:						

## ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Theresa Overturf

Name (Please Print)

Signature

Engineering Technician

Title

Date

RECEIVED

(9/2000)

JUN 04 2004

DIV. OF OIL, GAS &amp; MINING

007

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>P &amp; A</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46526
2. NAME OF OPERATOR: The Houston Exploration Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1100 Louisiana, Suite 2000 CITY Houston STATE TX ZIP 77002		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 495' FNL & 2039' FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 16 9S 24E		8. WELL NAME and NUMBER: Bonanza #2B-16
PHONE NUMBER: (713) 830-6938		9. API NUMBER: 4304735694
		10. FIELD AND POOL, OR WILDCAT: Devils Playground
		COUNTY: Uintah
		STATE: UTAH

## 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

## 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

6/1/04 through 6/16/04 Spud well and drld to 2190'. Ran 9 5/8" csg to 2161' and cmted. Drld to 7823'. Log. Plug #1 100 sx 7823'-7483', plug #2 100 sx 5852'-5512', plug #3 100 sx 4120'-3780', plug #4 50 sx 2256'-2187'. Repump plug #4 50 sx 2187'-1909', plug #5 50 sx 132'-32'. Released Rid. Well P&A 6/16/04.

NAME (PLEASE PRINT) Theresa Overturf	TITLE Engineering Technician
SIGNATURE <i>Theresa Overturf</i>	DATE 7/9/04

(This space for State use only)

RECEIVED

JUL 12 2004

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

008

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>P &amp; A</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46526
2. NAME OF OPERATOR: The Houston Exploration Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1100 Louisiana, Suite 2000 CITY Houston STATE TX ZIP 77002		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 495' FNL & 2039' FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 16 9S 24E		8. WELL NAME and NUMBER: Bonanza #2B-16
PHONE NUMBER: (713) 830-6938		9. API NUMBER: 4304735694
		10. FIELD AND POOL, OR WILDCAT: Devils Playground
		COUNTY: Uintah
		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

6/1/04 through 6/16/04 Spud well and drld to 2190'. Ran 9 5/8" csg to 2161' and cmt'd. Drld to 7823'. Log. Plug #1 100 sx 7823'-7483', plug #2 100 sx 5852'-5512', plug #3 100 sx 4120'-3780', plug #4 50 sx 2256'-2187'. Repump plug #4 50 sx 2187'-1909', plug #5 50 sx 132'-32'. Released Rid. Well P&A 6/16/04.

NAME (PLEASE PRINT) Theresa Overturf

TITLE Engineering Technician

SIGNATURE

*Theresa Overturf*

DATE 7/9/04

(This space for State use only)

RECEIVED

OCT 06 2004

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8  
(highlight changes)

009

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ OTHER ☐

b. TYPE OF WORK: NEW WELL ☒ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER ☐

2. NAME OF OPERATOR:  
The Houston Exploration Company

3. ADDRESS OF OPERATOR: 1100 Louisiana, Ste 2000 Houston STATE TX ZIP 77002

PHONE NUMBER: 713-830-6938

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: 495' FNL & 2039' FEL

AT TOP PRODUCING INTERVAL REPORTED BELOW:

AT TOTAL DEPTH:

14. DATE SPUDDED: 6/8/04 15. DATE T.D. REACHED: 6/12/04 16. DATE COMPLETED: 6/16/04

ABANDONED ☒ READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL): 5226.8' GL

18. TOTAL DEPTH: MD 7823' TVD

19. PLUG BACK T.D.: MD TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

23. WAS WELL CORED? NO ☒ YES ☐ (Submit analysis)  
WAS DST RUN? NO ☒ YES ☐ (Submit report)  
DIRECTIONAL SURVEY? NO ☒ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
16"	13 3/8"	48#	Surface	40'			Surface		
12 1/4"	9 5/8"	36#	Surface	2161'		675sx C1G	762	Surface	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS:

☒ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY  
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS:

P&A

## 31. INITIAL PRODUCTION

## INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

## INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

## INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

## INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

## 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

## 33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

## 35. ADDITIONAL REMARKS (Include plugging procedure)

Plug #1 100 sx "G" Neat 7823'-7483', Plug #2 100 sx C1 "G" Neat 5852'-5512', Plug #3 100 sx "G" Neat 4120'-3780', Plug #4 50 sx C1 "G" Neat 2187'-1909', Plug #5 50 sx CL "G" Neat 132'-32'.

## 36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Lloyd BruceTITLE Senior Operations EngineerSIGNATURE DATE 11/10/04

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation

- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

**ROUTING**

1. DJJ

2. CDW

Change of Operator (Well Sold)

**X - Operator Merger**

The operator of the well(s) listed below has changed, effective:

**6/1/2007**

**FROM: (Old Operator):**

N2525 - The Houston Exploration Company  
 1100 Louisiana, Suite 2000  
 Houston, TX 77002

Phone: 1-(713) 830-6800

**TO: ( New Operator):**

N6965-Forest Oil Corporation  
 707 17th St, Suite 3600  
 Denver, CO 80202

Phone: 1 (303) 812-1755

**CA No.**

**Unit:**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED LIST								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 7/30/2007
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 7/30/2007
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 7/31/2007
- a. Is the new operator registered in the State of Utah: Business Number: 571171-0143
- b. If **NO**, the operator was contacted on: \_\_\_\_\_
- a. (R649-9-2) Waste Management Plan has been received on: IN PLACE
- b. Inspections of LA PA state/fee well sites complete on: \_\_\_\_\_
- c. Reports current for Production/Disposition & Sundries on: YES
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM not yet BIA
- Federal and Indian Units:**  
 The BLM or BIA has approved the successor of unit operator for wells listed on: n/a
- Federal and Indian Communization Agreements ("CA"):**  
 The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 7/31/2007
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 7/31/2007
- Bond information entered in RBDMS on: 7/31/2007
- Fee/State wells attached to bond in RBDMS on: 7/31/2007
- Injection Projects to new operator in RBDMS on: n/a
- Receipt of Acceptance of Drilling Procedures for APD/New on: pending

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: 6236351
- Indian well(s) covered by Bond Number: n/a
- a. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 6218963
- b. The **FORMER** operator has requested a release of liability from their bond on: not yet

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 8/1/2007

**COMMENTS:**

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:

See Attached List

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:

See Attached List

9. API NUMBER:

various

10. FIELD AND POOL, OR WILDCAT:

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL

OIL WELL ☐

GAS WELL ☐

OTHER

2. NAME OF OPERATOR:

Forest Oil Corporation

3. ADDRESS OF OPERATOR:

707 17th Street, #3600

CITY

Denver,

STATE

CO

ZIP

80202

PHONE NUMBER:

(303) 812-1755

4. LOCATION OF WELL

FOOTAGES AT SURFACE: See attached list

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION



NOTICE OF INTENT  
(Submit in Duplicate)

Approximate date work will start:



SUBSEQUENT REPORT  
(Submit Original Form Only)

Date of work completion:



ACIDIZE



ALTER CASING



CASING REPAIR



CHANGE TO PREVIOUS PLANS



CHANGE TUBING



CHANGE WELL NAME



CHANGE WELL STATUS



COMMINGLE PRODUCING FORMATIONS



CONVERT WELL TYPE



DEEPEN



FRACTURE TREAT



NEW CONSTRUCTION



OPERATOR CHANGE



PLUG AND ABANDON



PLUG BACK



PRODUCTION (START/RESUME)



RECLAMATION OF WELL SITE



RECOMPLETE - DIFFERENT FORMATION



REPERFORATE CURRENT FORMATION



SIDETRACK TO REPAIR WELL



TEMPORARILY ABANDON



TUBING REPAIR



VENT OR FLARE



WATER DISPOSAL



WATER SHUT-OFF



OTHER: Change of Operator

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

N2525

Effective 6/1/2007 please change the operator for the attached list of Utah wells from The Houston Exploration Company N-2525 to Forest Oil Corporation (N-6965). Forest merged with The Houston Exploration Company, a copy of the merger document is attached.. The contract operated wells will continue to be contract operated by Enduring.

Forest Oil Corporation as new operator, accepts all applicable terms, conditions, stipulations and restrictions concerning approved operations conducted on the lease or portion of the lease described.

Forest Oil Corporation meets the State of Utah bonding requirements under Safeco bond #6218963.

Please send all future correspondence to Forest Oil Corporation at the above listed address.

Forest Oil Corporation, 707 17th Street, Suite #3600, Denver, CO 80202

J. C. Ridens, Senior Vice President - Western Region

7-5-07

Date

NAME (PLEASE PRINT) Joanne C. Hresko

TITLE Vice President & General Mgr. - Northern Division

SIGNATURE

DATE

7-5-07

(This space for State use only)

APPROVED 7/13/07

Earlene Russell

(5/2000)

Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

No wells in APD status or  
at New status  
at this time

RECEIVED

JUL 30 2007

DIV OF OIL, GAS & MINING

wmp



well_name	sec	tpw	rng	api	entity	lease	well	stat	flag	unit	qtr_qtr	l_num	op no
FEDERAL 28-01	28	080S	250E	4304730098	10095	Federal	GW	S			SESE	UTU-016257	N2525
CONOCO STATE 32-2	32	080S	250E	4304730100	10096	State	GW	S			NENE	ML-11124	N2525
ROCK HOUSE 11-31	31	100S	230E	4304733312	13984	Federal	GW	P			NESW	UTU-76281	N2525
BONANZA 4B-12	12	090S	230E	4304733806	14593	Federal	D	PA			NWNW	UTU-74426	N2525
WALKER HOLLOW 13-31	31	060S	230E	4304735039		Federal	GW	LA			SESW	UTU-76280	N2525
ROCK HOUSE 6D-32	32	100S	230E	4304735409	14293	State	GW	S			SENW	ML-47063	N2525
BONANZA 2B-16	16	090S	240E	4304735694	14186	State	D	PA			NWNE	ML-46526	N2525
ROCK HOUSE 2D-36	36	100S	220E	4304735759	14357	State	GW	P			NWNE	ML-47061	N2525
ROCK HOUSE 2D-32	32	100S	230E	4304735760	14317	State	GW	S			NWNE	ML-47063	N2525
ROCK HOUSE 10D-32	32	100S	230E	4304735761	14318	State	GW	S			NWSE	ML-47063	N2525
ROCK HOUSE 12D-32	32	100S	230E	4304735762	14294	State	GW	P			NWSW	ML-47063	N2525
ROCK HOUSE 11-36	36	100S	220E	4304735900	14478	State	GW	P			NESW	ML-46907	N2525
ROCK HOUSE 4-36	36	100S	220E	4304735901	14449	State	GW	S			NWNW	ML42061	N2525
BONANZA 12A-22	22	090S	240E	4304735922	14520	Federal	D	PA			NWSW	UTU-78118	N2525
BONANZA 14-16	16	090S	240E	4304735941	14521	State	D	PA			SESW	ML-46526	N2525
ROCK HOUSE 11-2	02	110S	230E	4304736153	14695	State	GW	P	C		NESW	ML-47078	N2525
ROCK HOUSE 7-32-10-23	32	100S	230E	4304736306	14766	State	GW	S			SWNE	ML-47063	N2525
ROCK HOUSE 3-32-10-23	32	100S	230E	4304736307	14781	State	GW	P			NENW	ML-47063	N2525
ROCK HOUSE 5-32-10-23	32	100S	230E	4304736410	14727	State	GW	S			SWNW	ML-47063	N2525
GUSHER 6-2	02	060S	190E	4304736963		State	OW	LA			SENW	ML-49144	N2525
N HORSESHOE 3-16-6-21	16	060S	210E	4304737391	15716	State	GW	DRL	C		NENW	ML-49317	N2525
N HORSESHOE 12-7-6-22	07	060S	220E	4304737392		State	GW	LA			NWSW	ML-47969	N2525
N HORSESHOE 16-9-6-22	09	060S	220E	4304737393		State	GW	LA			SESE	ML-47969	N2525
N HORSESHOE 14-10-6-22	10	060S	220E	4304737394		State	GW	LA			SESW	ML-47969	N2525
N HORSESHOE 2-15-6-22	15	060S	220E	4304737395		State	GW	LA			NWNE	ML-47969	N2525
N HORSESHOE 4-15-6-22	15	060S	220E	4304737396		State	GW	LA			NWNW	ML-47969	N2525
N WALKER HOLLOW 12-32-6-23	32	060S	230E	4304737397		State	GW	LA			NWSW	ML-47777	N2525
N WALKER HOLLOW 16-32-6-23	32	060S	230E	4304737398		State	GW	LA			SESE	ML-47777	N2525
N WALKER HOLLOW 2-32-6-23	32	060S	230E	4304737399	15741	State	GW	DRL	C		NWNE	ML-47777	N2525
N WALKER HOLLOW 10-32-6-23	32	060S	230E	4304737400		State	GW	LA			NWSE	ML-47777	N2525
N WALKER HOLLOW 8-32-6-23	32	060S	230E	4304737401		State	GW	LA			SENE	ML-47777	N2525
N WALKER HOLLOW 11-36-6-23	36	060S	230E	4304737462		State	GW	LA			NESW	ML-47970	N2525
N WALKER HOLLOW 13-36-6-23	36	060S	230E	4304737463		State	GW	LA			SWSW	ML-47970	N2525
N WALKER HOLLOW 15-36-6-23	36	060S	230E	4304737464		State	GW	LA			SWSE	ML-47970	N2525
N WALKER HOLLOW 14-32-6-23	32	060S	230E	4304737478		State	GW	LA			SESW	ML-47777	N2525
HACKING RES 11-32-8-25	32	080S	250E	4304737479		State	GW	LA			NESW	ML-11124	N2525
HACKING RES 3-32-8-25	32	080S	250E	4304737480		State	GW	LA			NENW	ML-11124	N2525
HACKING RES 5-32-8-25	32	080S	250E	4304737481		State	GW	LA			SWNW	ML-11124	N2525
HACKING RES 15-32-8-25	32	080S	250E	4304737482		State	GW	LA			SWSE	ML-11124	N2525
HACKING RES 9-32-8-25	32	080S	250E	4304737483		State	GW	LA			NESE	ML-11124	N2525
HACKING RESERVOIR 7-32-8-25	32	080S	250E	4304737571	15885	State	GW	DRL	C		SWNE	ML-11124	N2525